

Know Maintenance Garden The Perennial Garden Theory

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Molting Spider Mite

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The New Perennial Movement

Plants grow and interact with each other in self sustaining communities, tested combinations that enable them to live well with minimal input, closed plant communities knit together blocking weed seeds

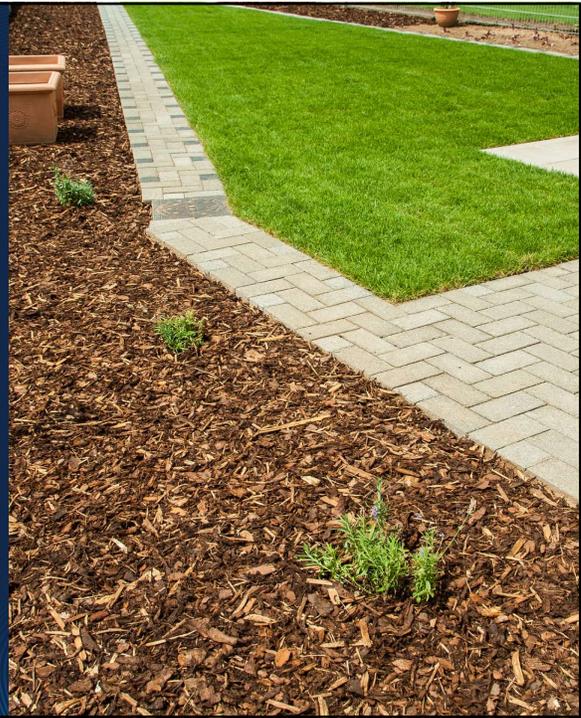
- Knowing the plant beyond color, bloom time and height
- We must have the ability to care for our garden
- Truly understand your weed nemesis



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Why do we do this?

- Tilling soil where plants have been growing
- Incorporate organic matter/mulch
- Space plants so far apart we create a "Wood Chip wasteland"
- Improper watering and fertilizing on a regiment
- Use Preemergent herbicides
- Cutting back everything at the end of the growing season



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Fit soil
requirements
to plants that
will be grown



Photo by Kelly Allsup

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Benefits of No Till

- Preserves Soil Structure
- Does not bring up weed seeds
- Increases water holding in soil
- Increases variety of life in soil like Microbial activity
- Decreases impact of drought
- Increases soil fertility
- Prevents air and water pollution
- Allows soil to acts as a sink for carbon

Photo by Cassandra Allsup



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Installing a bed

1. Clearing the site
 - Cardboard, newspaper
 - Black plastic
 - Glyphosate (2x)
- Cover area with 2 inches of leaf compost (only soil amendment in lifetime of the perennial bed)
- Water deeply
- Use a tile spade to plant



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Disadvantage of adding Organic Matter

- At time of planting
 - Soil disease issues
 - Plants grow too fast
 - Lots of weeds (chickweed and henbit)
- deprive the roots of oxygen
- greatly reduce the soil's ability to dry out.
- Most perennials do well in low organic rich soils
- Contributed slowly by plants



Photo by Steve Dewey, Utah State University, Bugwood.org



Photo by Bruce Ackley, The Ohio State University, Bugwood.org

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Fertilizing the plants

- March and April using a mower with a mulching blade go over area five to seven times
- Some plants like ornamental grasses will need to be cut back and then mowed
- Cut everything back laying the debris in the garden



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Can't wrap your mind around no mulch? Use leaf compost rather than wood chips.

- skip every other irrigation
- Weed suppression
- lack of competition from turfgrass
- Thick layers of mulch can become matted and may prevent the penetration of water and air
- does not allow observation of the soil surface
- increased stress in lightly irrigated landscapes
- creates problems with crown rot around plants
- Jumping Worms



Photo by Diane Plewa, UofI Plant Clinic

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Watering

- Watering is critical for the first 8 weeks
- Nurturing stage**
- 1 inch every 4-6 days
 - By third season watering will transition from nurturing stage to establishment stage
- Establishment stage**
- 5 inches in June, July and August
 - Don't install drip irrigation
 - Use impact sprinklers on tripods and rain gauges



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Weeds

- Reduce weeds by densely planting plants
- Most weeds will pop up around plants in no-till goal plants provide 50-75% of weed suppression
- Season 1 and 2

Weed every two-three weeks with Dutch hoe when weeds are about an inch tall

Hoe winter weeds (chickweed and Shepard's purse) after spring mow in April

- Season 3

By June, the plants are closely knit together

- Edging

In April after cut back

July



Photo by Kelly Allsup

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Photo by Joseph M. DiTomaso, University of California - Davis, Bugwood.org



Photo by Jan Samanek, Phytosanitary Administration, Bugwood.org

Most unwanted weeds-Canada Thistle

Cool season perennial

Roots and rhizomes extend 3-6 feet down

Heavy seeder (can germinate for up to 8 years)

Blooms in June –September

Treat during the early bolting stage when plants are 6-10" tall and during the bud to flowering stage

May have to treat multiple times

Dig out rhizomes

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Photos by Ohio State Weed Lab , The Ohio State University, Bugwood.com

Most unwanted weeds- Quack Grass

Cool season perennial
Spreads by rhizomes and seeds
Claw like slender auricle that clasps the stem
Dig out rhizomes
Herbicide spring or fall

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Photo by Jan Samanek, Phytosanitary Administration, Bugwood.org

Most unwanted weeds-Field bindweed

Perennial
Spreads by rhizomes
Arrowhead with round tip
Drought tolerant
Post emergent spot treatment

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Most unwanted weeds-Creeping Charlie

Shady areas, poor soils
 Produces runner
 dig out
 postemergence broadleaf herbicides in the period
 from mid-spring to early summer and/or mid to
 late fall

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Burning Bush



Teasel



Garlic Mustard

MANAGEMENT OF
 INVASIVE PLANTS
 AND PESTS OF
 ILLINOIS

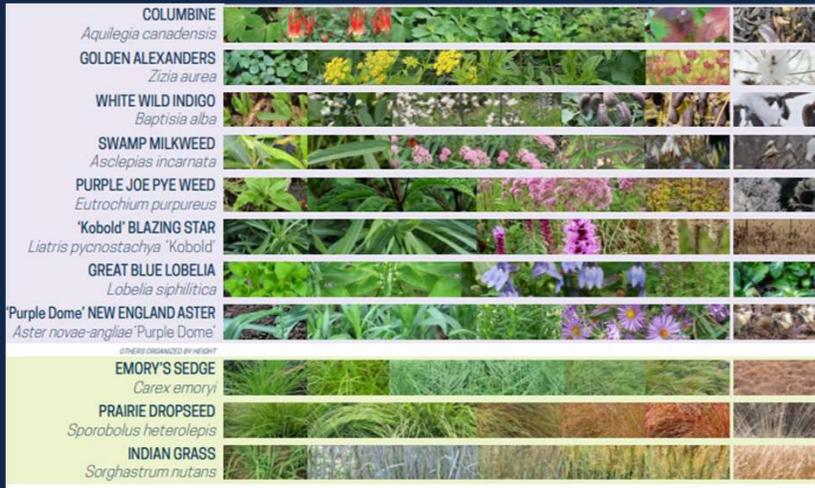
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FULL SUN RAIN GARDEN: A NATIVE PLANTING GUIDE FOR SUNNY RAIN GARDEN BEDS

<https://iiseagrant.org/publications/full-sun-rain-garden/>



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WET WOODLAND GARDEN NATIVE ILLINOIS PLANTS FOR WET AND SHADED

https://extension.illinois.edu/sites/default/files/wet_woodland_garden.pdf



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Rain Garden Plants

Bank plants

- Purple poppy mallow (*Callirhoe involucrata*)
- Prairie dropseed (*Sporobolus heterolepis*)
- Royal catchfly (*Silene regia*)
- Butterfly weed (*Asclepias tuberosa*)

Slope plants (Mid-level plants)

- Blazing star (*Liatris spicata*)
- Great blue lobelia (*Lobelia siphilitica*)
- Purple coneflower (*Echinacea purpurea*)
- Prairie alum root (*Heuchera richardsonii*)
- Orange Coneflower (*Rudbeckia fulgida*)

Basin plants

- Common Rush (*Juncus effusus*)
- Northern blue flag iris (*Iris versicolor*)
- Swamp milkweed (*Asclepias incarnata*)
- Joe pye weed (*Eutrochium purpureum*)
- Cardinal flower (*Lobelia cardinalis*)

Under Trees/Shade

- Sedge (*Carex pensylvanica*)
- Jacobs's ladder (*Polemonium reptans*)
- Nodding Onion (*Allium cernuum*)
- Woodland Phlox (*Phlox divaricate*)
- Virginia Bluebells (*Mertensia virginica*)

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Brome-like Sedge

- *Carex bromoides*
- Graceful green with soft texture and dense habit
- Spreads 8-12 inches in 2 years, 14-18 inches in 5 years
- Light shade to full shade
- Silvery green spikes that arch in late April to late May turning light brown
- Moisture loving *Carex* matrix with *C. brevior*, *C. montana*, *C. shortiana*, and *C. sprengeii*



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Wild Ginger

- *Asarum canadense*
- Heart shaped leaves spreading by rhizomes on the ground
- Purplish-brown flower in Spring covered by leaves
- Spreads 9-14 inches in 2 years, 16-20 inches in 5 years
- Mix with 60% Carex

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Christmas fern

- *Polystichum acrostichoides*
- Dark glossy fern foliage grows 18 inches tall and spreads 8-12 inches
- Full to part shade
- Evergreen
- Planted with Carex



Photo by John Hilty, Illinois wildflowers.info

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Virginia Bluebells

- *Mertensia virginica*
- Clusters of bell-shaped blue flowers that start pink in bud appear in April and May
- Plants go dormant in late June
- Full sun to part shade
- Spread 8-12 inches in 2 years, 12-18 inches in 5 years.
- Mix with 20% Carex



Photo by John Hilty, Illinois wildflowers.info

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Photo by John Hilty, Illinois wildflowers.info

Prairie Drop seed

- *Sporobolus heterolepis*
- Soft arching mounds that reach 6-9 inches in spring and up to 3 feet when in bloom
- Panicles bloom August through September with yellow fall color
- Full sun
- Buttered popcorn
- Spreads 12-18 inches in two years 22-28 inches in 5 years



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Phlox 'Blue Paradise'

- *Phlox paniculata*
- *Phlox* 'Blue Paradise' and 'David' resistance to Powdery Mildew
- Showy blue clusters starting July into late September
- Full sun to Part shade
- 14-18 inches in 2 years
20-24 inches in 5 years



Photo by John Hilty, Illinois wildflowers.info

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Bloody cranesbill

- *Geranium sanguineum*
- Deeply cut leaves that turn red in fall on 6-11-inch growth
- Long bloom time
- Full sun to part shade
- Adaptable to clay soils
- Spreads 8-10 inches in 2 years,
14-16 inches in 5 years
- Mix with 70% Prairie drop seed



Photos by Kelly Allsup

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Betony

- *Stachys officinalis*
- Showy erect flower spikes reaching 18-24 inches on top of layered foliage starting late June into August
- Full sun to Part shade
- Brown seed heads provide winter interest
- 6-8 inches in 2 years, 9-14 inches in 5 years
- Mix with 40% Prairie drop seed



Photos by Kelly Allsup and Elizabeth Wahle

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Bluestar

- *Amsonia tabernaemontana*
- Amsonia 'Blue Ice' more tolerant of wet conditions
- Clusters of blue flowers on 12-inch linear foliage appear in May to early June
- 8-12 inches in 2 years, 18-22 inches in 5 years
- Full sun to part shade
- Yellow fall color
- Mix with 30% Prairie Dropseed



Photo by Kelly Allsup

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Camassia

- *Camassia quamash*
- Blue flowering spikes on native bulb in late May
- Grass like foliage
- Full sun to part shade
- Dispersed randomly within landscape so other plants cover fading bulb foliage
- If used with aggressive plants, give space on the outer edge



Photo by Linda Simpson

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Camassia

- Plant bulbs 4-6" deep and 6" apart in fall
- Likes slightly acid soil.
- Sunny or Part Shade. Moist or Dry.
- During dormant season (summer) let leaves yellow before removing and may dig and remove the offsets carefully.
- Best left undisturbed once planted.
- Or you can let the flowers go to seed and either let the seed fall naturally or collect it and start them inside next spring.
- When grown from seed, takes 3 to 4 years to bloom.
- Flowers open sequentially from the bottom to the top.



Photo by Linda Simpson

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Additional Resources

Michelle Wiesenbrook. U of I Extension.

Getting Rid of Creeping Charlie. <https://www.chicagotribune.com/chicago-expert-q18-10jul10-story.html>

Home, Garden and Pest Newsletter. University of IL Extension.

- Canada Thistle Management in Lawns and Landscapes
<http://hyg.ipm.illinois.edu/article.php?id=73>
- Quackgrass - Also Known as Devils-grass and Some Other Not So Nice Names. <http://hyg.ipm.illinois.edu/article.php?id=499>
- Bindweed: The Vines that Bind (to Turf and Ornamentals)
<http://hyg.ipm.illinois.edu/article.php?id=991>
- Prepare for Chickweed Germination
<http://hyg.ipm.illinois.edu/article.php?id=1117>

- Kelly Allsup. U of I Extension

Rain gardens offer standing-water solutions.
<https://extension.illinois.edu/blogs/flowers-fruits-and-frass/2020-10-16-rain-gardens-offer-standing-water-solutions>

- John Hilty Illinois Wildflowers

<https://www.illinoiswildflowers.info/>

- Roy Diblik . The Know Maintenance Perennial Garden.
- Red Oak Rain Garden.

<https://extension.illinois.edu/global/red-oak-rain-garden>